

During the 31st shuttle mission to the International Space Station, STS-129, there was a clogging event in the shuttle wastewater tank. A routine wastewater dump was performed during the mission and before the dump was completed, degraded flow was observed. In order to complete the wastewater dump, flow had to be rerouted around the dump filter. As a result, a basic chemical and microbial investigation was performed to understand the shuttle wastewater system and perform mitigation tasks to prevent another blockage. Testing continued on the remaining shuttle flights wastewater and wastewater tank cleaning solutions. The results of the analyses and the effect of the mitigation steps are detailed in this paper.